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09/892,784	06/27/2001	Frank Bahren	Westphal.6311	9616

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EXAMINER

CHANKONG, DOHM

ART UNIT PAPER NUMBER

2152

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/892,784

Applicant(s)

BAHREN ET AL.

Examiner

Dohm Chankong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11, 14-21 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 14-21 and 24-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

- 1> This action is in response to Applicant's request for continued examination. Claims 11, 21 and 28 are amended. Claims 11, 14-21 and 24-30 are presented for further examination.
- 2> This is a non-final examination.

#### *Continued Examination Under 37 CFR 1.114*

- 3> A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9.5.2006 has been entered.

#### *Response to Arguments*

- I. APPLICANT'S AMENDMENTS DO NOT DISTINGUISH THE CLAIMED INVENTION OVER THE PRIOR ART REFERENCES.

With respect to claim 11, Applicant argues in substance: (A) Jha fails to disclose a "host" network standard. With respect to claims 21 and 28, Applicant argues in substance: (B) the MOST reference fails to disclose with any specificity the amended limitations. Applicant's amendments do not distinguish the claimed invention over the prior art references; Applicant's arguments with respect to the amendments have been fully considered but they are not persuasive.

- A. Jha discloses data formatted in accordance with both a host standard in a first instance and an extraneous standard in a second instance as claimed.

Applicant argues that Jha fails to disclose a host network standard along with an extraneous standard in two separate instances. As a preliminary matter, the Office sets forth its interpretation of the “host network standard” and “extraneous standard”. Applicant’s claims are interpreted in light of the specification. It should be noted that Applicant’s brief specification does not specify the term “host network standard” used in the claims.

However, the specification does state:

“It is therefore the object of the invention to design a method for transmitting data in a network by means of data telegrams and to design a data telegram for transmitting data in a network, in such a way that data can be transmitted in this network by means of data telegrams which do not correspond to the standard of this network” (emphasis added) [Applicant’s patent application publication 20020023137, ¶0004].

In other words, a host network is merely a network that transports data telegrams that do not correspond to the standard of the network (that is extraneous to the standard of the network).

With this interpretation of Applicant’s claims, the Office submits that Jha discloses a host network standard as claimed. Jha discloses a network using a Synchronous Optical Network/Synchronous Digital Hierarchy (SONET/SDH) protocol [column 1 «lines 25-30»]. Jha’s SONET network and corresponding protocol is analogous to Applicant’s host network standard. Any frames transmitted within a SONET network that is formatted in accordance with a SONET protocol is formatted according to the host standard for the network. Jha expressly discloses a telegram that contains a data section with data formatted in a second instance in accordance with the host network [Figure 7 : the SONET payload is

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formatted in accordance to the SONET host protocol], and data formatted in a first instance in accordance with an extraneous standard [Figure 7 «items 204a-204n»].

Therefore, any frame that is not formatted under the SONET protocol would necessarily be extraneous and different from the host network standard. As noted by Applicant, Jha discloses utilizing a variety of protocols such as ATM, IP, PPP, Frame Relay that can be utilized within the SONET network, even though the network traditionally utilizes SONET protocol frames. Jha discloses that previous SONET systems required “[s]eparate fiber networks for data types with current SONET protocols and separate fiber links are needed for transporting ATM, PDH traffic and variable-length packets such as IP or POS” [column 3 «lines 46-49»]. The use of separate fiber links for SONET protocol and ATM protocol clearly demonstrate that they are separate protocols. Jha’s invention solves the problem of requiring separate fiber links by enabling a SONET network (host network) to transport different, extraneous network protocols.

In conclusion, the Office’s interpretation of the claims is consistent with Applicant’s specification. Jha’s SONET protocol and network correspond to Applicant’s claimed host network standard and host network. Jha’s use of other networking protocols within the SONET network correspond to Applicant’s claimed extraneous standard that is different from the host network standard.

B. The MOST specification and Jha disclose the amended limitations as claimed.

Applicant argues the MOST specification fails to disclose with specificity a data and header section of a data telegram that specifies a host network standard and a differing extraneous standard. The MOST specification is relied upon to teach a MOST network

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utilizing a data telegram the has a data and header section, the data section having data formatted in a standard that is different from the host (MOST) network. Applicant argues the MOST specification suggests that various protocols are still formatted according to the MOST spec and therefore, are not extraneous to it. However, the Office interprets the MOST specification as reciting a means for transmitting various protocol packets within the MOST network and these protocols remain separate from the MOST protocol [see MOST specification, pg. 17, section 3.3: "Data types" | section 6.6, section 9 : "equipment such as multimedia computers, analog audio gateways, multimedia CD players, hi-fi audio equipment, telecommunication terminals...etc, can all be networked to interact"]. The Jha reference supports the MOST specification with respect to the functionality of utilizing varying network protocol packets in a "host" network that employs a different networking standard. Together, the MOST specification and the Jha reference disclose the limitations as claimed.

## II. CONCLUSION

For the foregoing reasons, Applicant's arguments have been considered and are not persuasive. Applicant's amendment do not overcome the prior art references. Therefore, the rejections set forth in the previous action are maintained.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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4> Claims 11, 14-21 and 24-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Office has established a new position with regards to claims directed towards data structures and collections of data and is set forth below.

FUNCTIONAL DESCRIPTIVE MATERIAL PER SE AND NON-FUNCTIONAL DESCRIPTIVE MATERIAL PER SE ARE NOT STATUTORY.

Computer-related products are classified into one of two groups: functional descriptive material and non-functional descriptive material. Functional material includes data structures (and computer programs which impart functionality when employed as a computer component). A data structure is "a physical or logical relationship among data elements, designed to support specific data manipulation functions" [The New IEEE Standard Dictionary of Electrical and Electronic Terms 308 (5<sup>th</sup> ed. 1993)]. Data packets are not considered to be data structures, but merely a collection of data.

Functional material *per se* is not statutory. Cf. In re Warmerdam (disembodied data structure claim). Functional material in combination with an appropriate medium must be capable of producing a useful, concrete and tangible result when used in a computer system.

Conversely, non-functional material *per se* is an abstract idea and therefore is not statutory. Examples of non-functional material include music, data formats (frames or packets) or other mere arrangements of facts or compilations of data. Non-functional material, when stored to be read or output by a computer *without any functional interrelationship*, does not impart functionality to the computer. Therefore, non-functional material is not statutory *even if in combination with a physical medium* because no useful, concrete or tangible result is produced.

Thus, the difference between functional material, such as a computer program and non-functional material, such as a data packet, is that when stored on a physical medium, there is a useful, concrete or tangible result produced. Storing a data packet on a physical medium is a function merely directed towards a collection of data and NOT to impart functionality to the physical medium.

APPLICANT'S CLAIMS DIRECTED TOWARDS A DATA TELEGRAM IS NOT STATUTORY AND ARE THEREFORE REJECTED UNDER §101.

Based on the foregoing discussion, Applicant's claims directed towards a data telegram is directed towards non-functional descriptive material and therefore is not statutory. Therefore, Applicant's claims 11, 14-21 and 24-30 fail to comply with the §101 requirement for failing to claim statutory subject matter.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5> Claims 21 and 24-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a. Claims 21 and 28 recite a MOST network having a MOST standard.

According to explicit teachings of the prior art, "MOST is a technology *rather than a networking standard*" [see MOST specification, pg. 47, section 12]. Thus, Applicant's



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claims directly contradict with what was well known at the time the invention was made. Applicant's specification does not provide any explanation to resolve the discrepancy and therefore, one of ordinary skill in the art would not have been able to make or use the invention as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6> Claims 11, 14-21 and 24-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

b. Claims 11, 21 and 28 are amended to state: "...specifying that the data within the data section are formatted in the first instance...and specifying that the data within the data section are formatted in the second instance". There is therefore an antecedent problem as this recited section fails to differentiate between "the data" of the data section; there are two types of data in the data section.

In other words, under the Office's understanding, the claims should recite: a header section that contains information specifying that the data *that is formatted in the first instance* within the data section is formatted in the first instance. Similarly, "...and specifying that the data *that is formatted in the second instance* within the data section is formatted in the second instance."

Therefore, claims 11, 21 and 28 are rejected for lacking proper antecedent basis.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7> Only those claims that have amended by Applicant are formally addressed in this action. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action, see previous rejection, filed 3.3.2006.

8> Claims 11, 14, 18 and 20 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, U.S Patent No. 6.771.663.

1> As to claim 11, Jha discloses a data telegram for transmitting data within a host network having a standard for the transmission of the data within the host network, the data telegram comprising:

a data section having a pair of regions, one region in the pair of regions containing data formatted in a first instance in accordance with an extraneous standard that is different than the host network standard, the first region containing data formatted in a second instance in accordance with the host network standard [Figure 7 | Figure 9 «item 274» | column 5 «lines 52-55» | column 7 «lines 39-60» where: the host network utilizes a SONET protocol. Jha discloses that the SONET packet contains a SONET payload (first region) that

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contains data formatted in a variety of protocols (second region that is within the first region)); and

a header section that contains information specifying that the data within the data section are formatted in the first instance according to the extraneous standard and specifying that the data within the data section are formatted in the second instance according to the host network standard, where a second region in the pair of regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the host network standard specified by the information in the header section, where a telegram identification portion of the header section that specifies an identification of data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the host network standard in the second instance contains an identification of data associated with the extraneous standard in the first instance [Figure 7 «items 204a, 204b, 204c» | column 5 «line 67» to column 6 «line 5» | column 7 «lines 39-60» | column 9 «lines 55-60» | Figure 11 «item 302» | column 11 «lines 26-37»].

Jha also discloses a telegram length portion of the header section that specifies a length of the data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the host network standard in the second instance [column 7 «lines 61-65» | column 10 «lines 27-30»] but does not expressly disclose that the portion no longer specifies the length of the data associated with the host network

standard when the data in the first region of the data section is formatted in accordance with the extraneous standard.

However, this functionality is implied by Jha's disclosure. Jha discloses that the data in the data section of the telegram may be formatted in accordance with both host or extraneous standards [column 11 «lines 26-37»]. Thus, when the data is in accordance with the extraneous standard, the length portion specifies the length of the data of the extraneous standard and not the host standard. Therefore Jha implicitly discloses that the telegram length portion no longer specifies the length of the data associated with the host network standard when the data in the first region of the data section is formatted in accordance with the extraneous standard.

9> Claims 15 and 16 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, in view of the MOST Specification Framework Rev. 1.1 [“MOST spec”].

10> Claims 17 and 19 are rejected under 35 U.S.C § 103(a) as being unpatentable over Jha, in view of in view of Flanders et al, U.S Patent No. 6,172,980 [“Flanders”].

11> Claims 21, 24-26 and 28-30 are rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec, in view of Jha.

12> As to claims 21 and 28, the MOST spec discloses a data telegram for transmitting data within

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a MOST network having a MOST standard that defines the transmission of data within the MOST network [sections 2.1 and 2.4], the data telegram comprising:

a data section containing data formatted in a first instance in accordance with an extraneous standard that is different than the MOST standard, the first region containing data formatted in a second instance in accordance with the MOST standard [section 2.5 | sections 5, 6.7, 6.8.(1-4) where : the MOST standard is compatible with a number of different protocols, the packets of which are transported to the various nodes using the MOST standard].

The MOST spec also discloses a header section having a plurality of bytes [section 5, page 31] but does not explicitly disclose that the header section has a predetermined region of which contains information specifying that the data section is formatted according to the extraneous standard, that the data section has a pair of regions, or the header section contains a telegram identification portion and a telegram length portion.

13> Similar to Jha, MOST spec is directed towards transporting various data types within container structures [section 6.6, section 9 : "equipment such as multimedia computers, analog audio gateways, multimedia CD players, hi-fi audio equipment, telecommunication terminals...etc, can all be networked to interact"]. As such, one of ordinary skill in the art would realize the need for a means of identification of the data stored in the containers so the destination nodes are aware of the kind of data they are receiving. Jha discloses a network similar to MOST [a hybrid data transport over optical networks].

Specifically, Jha discloses a data section having a pair of regions, one region in the pair of regions containing the data, and the second region containing header information associated with the extraneous standard specified in the header section [Figure 7 | column 7 «lines 39-60»]. Jha discloses a header section having a predetermined region that contains information specifying that the data section is formatted in the first instance according to the extraneous standard and specifying that the data within the data section are formatted in the second instance according to the host standard [column 8 «lines 49-63»], where a second region in the pair of the regions in the data section contains header information in the first instance associated with the extraneous standard specified by the information in the header section and in the second instance associated with the MOST standard specified by the information in the header section [Figure 7 | column 7 «lines 46-49»].

Jha also discloses a telegram identification portion and a telegram length portion within the header section [see claim 11 rejection, above]. The purpose of these portions are to enable the system to make appropriate decisions on how to handle the data contained within the telegram by determining the protocols and length of the packet [see Jha, Figure 11 | Figure 12].

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate Jha's header functionality into MOST's header to enable identification of the multiple traffic types (standards) of the data payload. Further, it would have been obvious to incorporate Jha's data section with its pair of regions into MOST's data section to enable an increase in the data traffic capabilities of the MOST network.

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14> Claim 27 is rejected under 35 U.S.C § 103(a) as being unpatentable over MOST and Jha, in further view of Flanders.

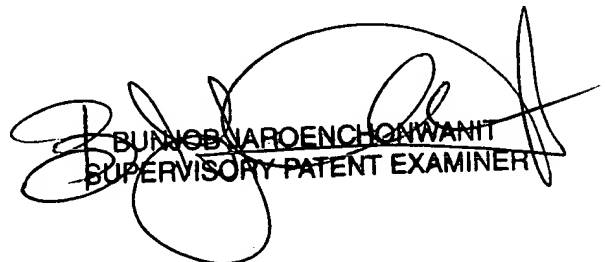
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Tuesday-Friday [7:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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